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ART. IX.—*Diabase Rocks at the You Yangs, near Geelong.*

By ALAN COULSON, M.Sc.

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This paper is designed to correct certain mis-statements made in an earlier paper(1) I wrote on the epidiorite rocks of the Geelong district. On page 108 I mentioned that in searching for this type of rock at the You Yangs I found a small outcrop of "dolerite, quite fresh and without any sign of recrystallization." Recently I cut several more slides of this rock, and Mr. A. B. Edwards, B.Sc., on examining them stated that the rock was a typical diabase, i.e., uralitized dolerite. Re-examination of the solitary original section showed it to be a diabase. The rock is a dark-green colour in the hand specimen, and microcrystalline. It resembles some of the finer-grained epidiorite of the Ceres area. Microscopically, the ophitic growth of plagioclase and secondary amphibole is characteristic. The original ferro-magnesian is now almost entirely paramorphically altered to actinolite. The rock consists chiefly of clear laths of unaltered labradorite and interstitial matted fibres of pleochroic green actinolite, partly chloritized. A few patches of strongly pleochroic brown hornblende occur amongst the fibrous actinolite.

Corrections are also necessary to the statement that the diabase is "a differentiation from an unrecorded dyke of felspar porphyrite." The southern portion of this dyke was described by Prof. Skeats(2) as "occurring as a broad dyke 20 to 30 feet wide and extending for some hundreds of feet up the south-east slope of Station Peak." By Station Peak he meant the whole of the southern elevated portion; the highest peak in this is now called Flinders Peak. Prof. Skeats noted that the rock in this dyke varied from a granite porphyry to a hornblende porphyrite. I have followed it for $2\frac{1}{2}$ miles north through the granite mass until it disappears under the Recent sands. Its usual character is that of a felspar porphyry, with variations as noted. Near the outcrop of diabase it is a hornblende porphyrite of dark-green colour.

The diabase is not *in situ*, but occurs as a number of boulders, the largest of these measuring 4 ft. 6 in. by 3 feet by 2 feet. The boulders rest on granitic soil, about 50 yards from the nearest portion of the dyke. There is no connexion between the two. It appears possible that these diabase boulders are remnants of a former roof-pendant in the granite. The age of the granite is post-Ordovician(2), and probably Lower Devonian, and the diabase would therefore be older than Devonian. Lithologically it resembles the Heathcoteian diabase, of Middle or Upper Cambrian age.

An interesting and possibly significant fact is that the You Yangs outcrop of diabase lies on a line joining the Colbinabbin Range with the Dog Rocks and Ceres outcrops. Further evidence would be necessary before this line could be safely regarded as an eroded anticlinal axis.

I have to thank Prof. Skeats and Mr. A. B. Edwards for their interest in the above work.

Bibliography.

1. COULSON, A. On the Relationship of the Epidiorite and the Granite at the Barrabool Hills and Dog Rocks, near Geelong. *Proc. Roy. Soc. Vic.* (n.s.), xlv. (2), 1932.
 2. SKEATS, E. W. Notes on the Geology of the You Yangs, Victoria. Report Aust. Assoc. Adv. Sci., xi., Adelaide, 1907.
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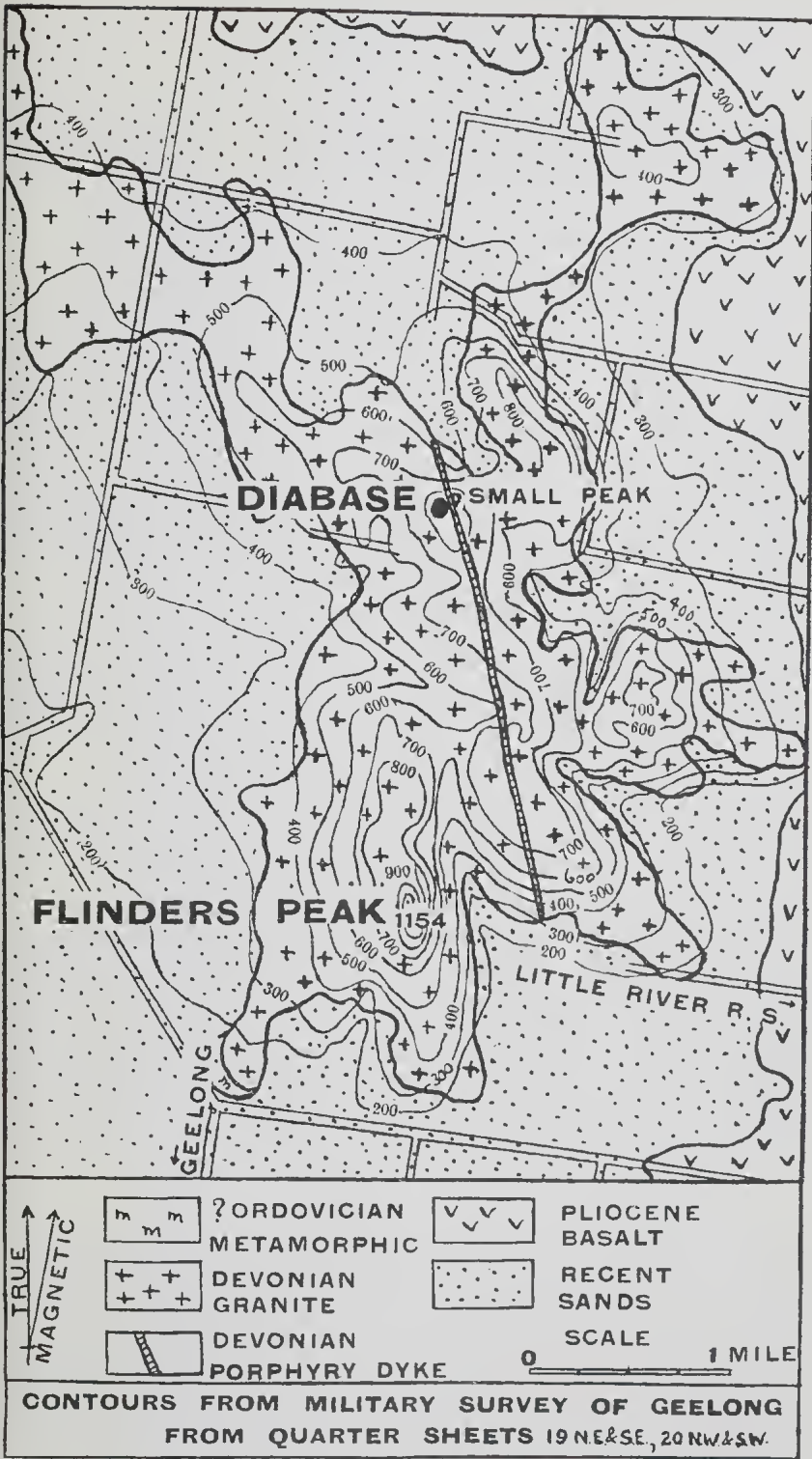


FIG. 1.—Geological Map of the You Yangs, near Geelong.